

## ABSTRACT OF THE INVENTION

A method and apparatus for transmitting packets of data over a packet-switched network and for monitoring the transmission characteristics associated with the transmission is disclosed. In one configuration the method and apparatus is configured to interface with a telephone network, such as the public switched telephone network. In such a configuration, two or more interface devices located at different locations connect to a computer network, such as the Internet and to a telephone network. The interface devices receive information from the telephone and manipulate this information and transmits it over a computer network to another interface device. Also included is monitoring and routing software located on any of the interface devices or a separate monitoring and routing system. The monitoring and routing software is in communication with each interface device to obtain information regarding the communication characteristics between each of the one or more interface devices. If the communication characteristics are undesirable, the monitoring and routing software may communicate with the one or more interface devices to achieve a change in routing of the information over the computer network.